

Prelim Reading List for Modern Physical Science

(last updated: February 27, 2006)

Proposed preliminary examination reading list for Dana Freiburger.

List of categories:

1 – Overview, Historiography, some ‘Classics’, and Survey Works

2.1 – 19th Century Physics

2.2 – 20th Century Physics

3 – Big Science

4 – Astronomy

5.1 – National Histories

5.2 – Atomic Weapons

6 – Sites of Research

7 – Instruments and Experiments

8 – Biography

9 – Japan

Document History:

09/12/05 – First draft submitted to Richard

11/14/05 – Updated based on 10/12/05 meeting with Richard

02/27/06 – Updated to add categories to Endnote records, close to ‘final’

Prelim Reading List for Modern Physical Science

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1 – Overview, Historiography, some ‘Classics’, and Survey Works

01	Brown, Pais and Pippard, Twentieth century physics, 1995.
02	Cajori, A history of physics in its elementary branches (through 1925): including the evolution of physical laboratories, 1962.
03	Collins and Pinch, The Golem: What You Should Know About Science, 1998.
04	Dear, Revolutionizing the Sciences: European Knowledge and its Ambitions, 1500-1700, 2001.
05	Forman, The environment and practice of atomic physics in Weimar, Germany; a study in the history of science, 1968.
06	Fraser, The particle century, 1998.
07	Galison and Stump, The Disunity of Science: Boundaries, Contexts, and Power, 1996.
08	Kragh, Quantum Generations: a History of Physics in the Twentieth Century, 1999.
09	Kuhn, Black-body theory and the quantum discontinuity, 1894-1912, 1987.
10	Morus, When physics became king, 2005.
11	Nye, Before Big Science: the Pursuit of Modern Chemistry and Physics, 1800-1940, 1996.
12	Segrè, From X-rays to Quarks: Modern Physicists and their Discoveries, 1980.
13	Smith, The Science of Energy: a Cultural History of Energy Physics in Victorian Britain, 1998.
14	Supplee, Franz and Rigden, Physics in the 20th century, 1999.
	** several early physics articles: Einstein, Heisenberg, Mach, Nagaoka, etc. Will finalize later as my reading progresses.

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2.1 – 19th Century Physics

01	Buchwald, The Creation of Scientific Effects: Heinrich Hertz and Electric Waves, 1994.
02	Buchwald, The Rise of the Wave Theory of Light: Optical Theory and Experiment in the Early Nineteenth Century, 1989.
03	Cahan and Rudd, Science at the American Frontier: a Biography of DeWitt Bristol Brace, 2000.
04	Hunt, The Maxwellians, 1991.
05	Maier, The role of spectroscopy in the acceptance of the internally structured atom, 1860-1920, 1981.
06	McCormach, Night thoughts of a classical physicist, 1982.
07	McGucken, Nineteenth-century spectroscopy; development of the understanding of spectra, 1802-1897, 1969.
08	Sweetnam, The Command of Light: Rowland's School of Physics and the Spectrum, 2000.
09	Wise, The values of precision, 1995. (and why this book belongs in my 19 th Century Physics category)

2.2 – 20th Century Physics

01	Brown and Hoddeson, The Birth of particle physics, 1983.
02	Buchwald and Warwick, Histories of the Electron: the Birth of Microphysics, 2001.
03	Cline, Men Who Made a New Physics: Physicists and the Quantum Theory, 1987.
04	Cushing, Quantum Mechanics: Historical Contingency and the Copenhagen Hegemony, 1994.
05	Heilbron, A history of the problem of atomic structure from the discovery of the electron to the beginning of quantum mechanics, 1964.
06	Heilbron, Lectures on the History of Atomic Physics, 1977.
07	Kaiser, Drawing theories Apart: the Dispersion of Feynman Diagrams in Postwar Physics, 2005.
08	Mehra, The Solvay Conferences on Physics: Aspects of the Development of Physics since 1911, 1975.
09	Pickering, Constructing Quarks: a Sociological History of Particle Physics, 1984.
10	Schweber, QED and the Men who Made It: Dyson, Feynman, Schwinger, and Tomonaga, 1994.
11	Tomonaga, The Story of Spin, 1997.

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3 – Big Science

01	Cloud, American Cartographic Transformations during the Cold War, 2002.
02	Galison and Hevly, Big Science: the Growth of Large-scale Research, 1992.
03	Grunden, Secret Weapons and World War II: Japan in the Shadow of Big Science, 2005.
04	Hoddeson and Kolb, The Superconducting Super Collider's Frontier Outpost, 1983-1988, 2000.
05	Low, Nakayama and Yoshioka, Science, technology and society in contemporary Japan, 1999.
06	Smith and Tatarewicz, Counting on Invention: Devices and Black Boxes in Very Big Science, 1994.
07	United States. Office of Scientific Research and Development. and Bush, Science, the endless frontier. A report to the President, 1945.
08	Westfall and Hoddeson, Thinking small in big science: The founding of Fermilab, 1960-1972, 1996.

4 – Astronomy

01	Aubin, The Fading Star of the Paris Observatory in the Nineteenth Century: Astronomers Urban Culture of Circulation and Observation, 2003.
02	Clerke, A popular history of astronomy during the nineteenth century, 1902.
03	DeVorkin, Toshio Takamine's Contact with the West, 2002.
04	Doel, Solar System Astronomy in America: Communities, Patronage, and Interdisciplinary Science, 1920-1960, 1996.
05	Florence, The Perfect Machine: Building the Palomar Telescope, 1994.
06	Lankford and Slavings, American Astronomy: Community, Careers, and Power, 1859-1940, 1997.
07	Longair, The Cosmic Century: A History of Astrophysics and Cosmology, 2006.
08	Osterbrock, Gustafson and Unruh, Eye on the Sky: Lick Observatory's First Century, 1988.
09	Osterbrock, Yerkes Observatory, 1892-1950: the Birth, Near Death, and Resurrection of a Scientific Research Institution, 1997.
10	Sheehan and Westfall, The transits of Venus, 2004.
11	Smith, The Expanding Universe: Astronomy's "Great Debate," 1900-1931, 1982.
12	Smith, The space telescope: a study of NASA, science, technology, and politics, 1993.
13	Strauss, Percival Lowell, W.H. Pickering and the founding of the Lowell Observatory, 1994.

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5.1 – National Histories

01	Bartholomew, The formation of science in Japan: Building a Research Tradition, 1989.
02	Galdabini and Giuliana, Physics in Italy between 1900 and 1940: The Universities, physicists, funds, and research, 1988.
03	Gaston, Originality and Competition in Science: a Study of the British High Energy Physics Community, 1973.
04	Graham, Science in Russia and the Soviet Union: a Short History, 1993.
05	Kevles, The physicists / the history of a scientific community in modern America, 1995.
06	Leslie, The Cold War and American Science: the Military-Industrial-Academic Complex at MIT and Stanford, 1993.
07	Rossiter, Women Scientists in America: Struggles and Strategies to 1940, 1982.
08	Servos, Mathematics and the Physical Sciences in America, 1996.

5.2 – Atomic Weapons

01	Frayn, Copenhagen, 2000.
02	Goldberg, Inventing a Climate of Opinion: Vannevar Bush and the Decision to Build the Bomb, 1996.
03	Herken, Brotherhood of the Bomb: the Tangled Lives and Loyalties of Robert Oppenheimer, Ernest Lawrence, and Edward Teller, 2002.
04	Holloway, Stalin and the Bomb: the Soviet Union and Atomic Energy, 1939-56, 1994.
05	Hughes, The Manhattan Project: Big Science and the Atom Bomb, 2002.
06	Rhodes, Dark Sun: the Making of the Hydrogen Bomb, 1995.
07	Rhodes, The making of the atomic bomb, 1986.
08	Walker, Nazi Science: Myth, Truth, and the German Atomic Bomb, 1995.
09	Yamazaki, Nuclear Weapons Research in Japan during the Second World War, 2005.

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6 – Sites of Research

01	Cahan, An Institute for an Empire: the Physikalisch-Technische Reichsanstalt, 1871-1918, 1989.
02	Cavendish, A History of the Cavendish Laboratory 1871-1910, 1910.
03	Crease, Making Physics: a Biography of Brookhaven National Laboratory, 1946-1972, 1999.
04	Fox and Guagnini, Laboratories, Workshops, and Sites: Concepts and Practices of Research in Industrial Europe, 1800-1914, 1999.
05	Fraser, The Quark Machines: How Europe Fought the Particle Physics War, 1997.
06	Heilbron, Seidel and Wheaton, Lawrence and his Laboratory: Nuclear Science at Berkeley, 1981.
07	Hounshell and Smith, Science and Corporate Strategy: Du Pont R&D, 1902-1980, 1988.
08	Kim, Leadership and Creativity: A History of the Cavendish Laboratory, 1871-1919, 2002.
09	Lowen, Creating the Cold War University: the Transformation of Stanford, 1997.
10	Riordan and Hoddeson, Crystal Fire: the Birth of the Information Age, 1997.
11	Robertson, The Early Years: The Niels Bohr Institute, 1921-1930, 1979.
12	Traweek, Beamtimes and Lifetimes: The World of High Energy Physicists, 1992.
13	Warwick, Masters of Theory: Cambridge and the Rise of Mathematical Physics, 2003.
14	Westwick, The National Labs: Science in an American System, 1947-1974, 2003.

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7 – Instruments and Experiments

01	Baird, <i>Thing Knowledge: a Philosophy of Scientific Instruments</i> , 2004.
02	Cahn and Goldhaber, <i>The experimental foundations of particle physics</i> , 1989.
03	Cantor, Gooding, James and Cantor, <i>Michael Faraday</i> , 1996.
04	Collins, <i>Changing Order: Replication and Induction in Scientific Practice</i> , 1985.
05	Franklin, <i>The Neglect of Experiment</i> , 1986.
06	Galison, <i>How Experiments End</i> , 1987.
07	Galison, <i>Image and Logic: a Material Culture of Microphysics</i> , 1997.
08	Gooday, <i>The Morals of Measurement: Accuracy, Irony, and Trust in late Victorian Electrical Practice</i> , 2004.
09	Gooding, Pinch and Schaffer, <i>The Uses of Experiment: Studies in the Natural Sciences</i> , 1988.
10	Hentschel, <i>Mapping the Spectrum: Techniques of Visual Representation in Research and Teaching</i> , 2002.
11	Jackson, <i>Spectrum of Belief: Joseph von Fraunhofer and the Craft of Precision Optics</i> , 2000.
12	Joerges and Shinn, <i>Instrumentation: between Science, State, and Industry</i> , 2001.
13	Kuhn, <i>The Function of Measurement in Modern Physical Science</i> , 1977.
14	Lenoir and Lecuyer, <i>Instrument Makers and Discipline Builders: The Case of Nuclear Magnetic Resonance</i> , 1995.
15	Morus, <i>Frankenstein's Children: Electricity, Exhibition, and Experiment in Early-nineteenth-century London</i> , 1998.
16	Williams, <i>The Precision Makers: a History of the Instruments Industry in Britain and France, 1870-1939</i> , 1994.

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8 – Biography

01	Brück, Agnes Mary Clerke and the rise of astrophysics, 2002.
02	Cassidy, Uncertainty: the Life and Science of Werner Heisenberg, 1992.
03	Christianson, Edwin Hubble: Mariner of the Nebulae, 1995.
04	DeVorkin, Henry Norris Russell: Dean of American Astronomers, 2000.
05	Fölsing, Albert Einstein: A Biography, 1997.
06	Kimura and Carpenter, Living with Nuclei: 50 years in the Nuclear Age, Memoirs of a Japanese Physicist, 1993.
07	Makinosuke, Sin-itiro Tomonaga: Life of a Japanese Physicist, 1995.
08	Nye, Blackett: Physics, War, and Politics in the Twentieth Century, 2004.
09	Quinn, Marie Curie: A Life, 1995.
10	Sime, Lise Meitner: A Life in Physics, 1996.
11	Smith and Wise, Energy and Empire: a Biographical Study of Lord Kelvin, 1989.
12	Townes, How the Laser Happened: Adventures of a Scientist, 1999.
13	Wilson, Rutherford, Simple Genius, 1983.
14	Zachary, Endless Frontier: Vannevar Bush, Engineer of the American Century, 1997.

9 – Japan

01	Bartholomew, Japanese Modernization and the Imperial Universities, 1876-1920, 1978.
02	Brock, The Japanese Connexion: Engineering in Tokyo, London, and Glasgow at the End of the Nineteenth Century, 1981.
03	Clancey, Foreign Knowledge: Cultures of Western Science-Making in Meiji Japan, 2002.
04	Gooday, Teaching Telegraphy and Electrotechnics in the Physics Laboratory: William Ayrton and the Creation of an Academic Space for Electrical Engineering in Britain 1873-1884, 1991.
05	Kim, Two Different Influences on the Japanese Physics Community in the Early Twentieth Century, 1997.
06	Koizumi, The Emergence of Japan's First Physicists: 1868-1900, 1975.
07	Low, The Useful War: Radar and the Mobilization of Science and Industry in Japan, 2000.
08	MacLean, The Introduction of Books and Scientific Instruments into Japan, 1712-1854, 1974.
09	Sugiyama, "Good Luck" in the History of Science in Japan, 1999.
10	Watanabe, The Emergence of Japan in the International Scientific Community, 1997.

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Complete bibliography:

1. Aubin, David, "The Fading Star of the Paris Observatory in the Nineteenth Century: Astronomers Urban Culture of Circulation and Observation," *Osiris* 18(2003), 79-100.
2. Baird, Davis, *Thing Knowledge: a Philosophy of Scientific Instruments* (Berkeley: University of California Press, 2004).
3. Bartholomew, James R., *The formation of science in Japan: Building a Research Tradition* (New Haven: Yale University Press, 1989).
4. Bartholomew, James R., "Japanese Modernization and the Imperial Universities, 1876-1920," *Journal of Asian Studies* 37-2 (1978), 251-271.
5. Brock, W. H., "The Japanese Connexion: Engineering in Tokyo, London, and Glasgow at the End of the Nineteenth Century," *British Journal for the History of Science* 14(1981), 227-243.
6. Brown, Laurie M. and Hoddeson, Lillian, *The Birth of particle physics* (Cambridge [Cambridgeshire]; New York: Cambridge University Press, 1983).
7. Brown, Laurie M., Pais, Abraham, and Pippard, A. B., *Twentieth century physics* (Bristol, UK: Institute of Physics, 1995).
8. Brück, M. T., *Agnes Mary Clerke and the rise of astrophysics* (Cambridge; New York: Cambridge University Press, 2002).
9. Buchwald, Jed Z., *The Creation of Scientific Effects: Heinrich Hertz and Electric Waves* (Chicago: University of Chicago Press, 1994).
10. Buchwald, Jed Z., *The Rise of the Wave Theory of Light: Optical Theory and Experiment in the Early Nineteenth Century* (Chicago: University of Chicago Press, 1989).
11. Buchwald, Jed Z. and Warwick, Andrew, *Histories of the Electron: the Birth of Microphysics* (Cambridge, Mass.: MIT Press, 2001).
12. Cahan, David, *An Institute for an Empire: the Physikalisches-Technische Reichsanstalt, 1871-1918* (Cambridge [Cambridgeshire]; New York: Cambridge University Press, 1989).
13. Cahan, David and Rudd, M. Eugene, *Science at the American Frontier: a Biography of DeWitt Bristol Brace* (Lincoln: University of Nebraska Press, 2000).
14. Cahn, Robert N. and Goldhaber, Gerson, *The experimental foundations of particle physics* (Cambridge; New York: Cambridge University Press, 1989).
15. Cajori, Florian, *A history of physics in its elementary branches (through 1925): including the evolution of physical laboratories*, Rev. and enl. ed. (New York: Dover Publications, 1962).
16. Cantor, G. N., Gooding, David, James, Frank A. J. L., and Cantor, G. N., *Michael Faraday* (Atlantic Highlands, NJ: Humanities Press, 1996).
17. Cassidy, David C., *Uncertainty: the Life and Science of Werner Heisenberg* (New York: W.H. Freeman, 1992).
18. Cavendish, *A History of the Cavendish Laboratory 1871-1910* (London; New York: Longmans, Green, and co., 1910).
19. Christianson, Gale E., *Edwin Hubble: Mariner of the Nebulae* (New York: Farrar, Straus, Giroux, 1995).

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20. Clancey, Gregory, "Foreign Knowledge: Cultures of Western Science-Making in Meiji Japan," *Historia Scientiarum* 11-3 (2002), 245-260.
21. Clerke, Agnes M., *A popular history of astronomy during the nineteenth century*, 4th ed. (London: A. and C. Black, 1902).
22. Cline, Barbara Lovett, *Men Who Made a New Physics: Physicists and the Quantum Theory* (Chicago: University of Chicago Press, 1987).
23. Cloud, John, "American Cartographic Transformations during the Cold War," *Cartography and Geographic Information Systems* 29-3 (2002), 261-282.
24. Collins, H. M., *Changing Order: Replication and Induction in Scientific Practice* (London: Sage, 1985).
25. Collins, H. M. and Pinch, T. J., *The Golem: What You Should Know About Science*, 2nd ed. (Cambridge [England]; New York, NY: Cambridge University Press, 1998).
26. Crease, Robert P., *Making Physics: a Biography of Brookhaven National Laboratory, 1946-1972* (Chicago: University of Chicago Press, 1999).
27. Cushing, James T., *Quantum Mechanics: Historical Contingency and the Copenhagen Hegemony* (Chicago: University of Chicago Press, 1994).
28. Dear, Peter Robert, *Revolutionizing the Sciences: European Knowledge and its Ambitions, 1500-1700* (Princeton, N.J.: Princeton University Press, 2001).
29. DeVorkin, D.H., "Toshio Takamine's Contact with the West," in Ansari, S. M. Razaullah (ed.), *History of oriental astronomy: Proceedings of the joint discussion-17 at the 23rd General Assembly of the International Astronomical Union, organised by the Commission 41 (History of Astronomy), held in Kyoto, August 25-26, 1997* (Dordrecht: Kluwer Academic Publishers, 2002).
30. DeVorkin, David H., *Henry Norris Russell: Dean of American Astronomers* (Princeton, N.J.: Princeton University Press, 2000).
31. Doel, Ronald Edmund, *Solar System Astronomy in America: Communities, Patronage, and Interdisciplinary Science, 1920-1960* (Cambridge; New York: Cambridge University Press, 1996).
32. Florence, Ronald, *The Perfect Machine: Building the Palomar Telescope* (New York: HarperCollins, 1994).
33. Fölsing, Albrecht, *Albert Einstein: A Biography* (New York: Viking, 1997).
34. Forman, Paul, *The environment and practice of atomic physics in Weimar, Germany; a study in the history of science* (Berkeley, 1968).
35. Fox, Robert and Guagnini, Anna, *Laboratories, Workshops, and Sites: Concepts and Practices of Research in Industrial Europe, 1800-1914* (Berkeley: Office of the History of Science and Technology, University of California, 1999).
36. Franklin, Allan, *The Neglect of Experiment* (Cambridge [Cambridgeshire]; New York: Cambridge University Press, 1986).
37. Fraser, Gordon, *The particle century* (Bristol; Philadelphia: Institute of Physics Pub., 1998).
38. Fraser, Gordon, *The Quark Machines: How Europe Fought the Particle Physics War* (Bristol, UK; Philadelphia, PA: Institute of Physics Pub., 1997).
39. Frayn, Michael, *Copenhagen* (New York: Anchor Books, 2000).

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40. Galdabini, Silvana and Giuliana, Giuseppe, "Physics in Italy between 1900 and 1940: The Universities, physicists, funds, and research," *Historical Studies in the Physical Sciences* 19(1988), 115-136.
41. Galison, Peter Louis, *How Experiments End* (Chicago: University of Chicago Press, 1987).
42. Galison, Peter Louis, *Image and Logic: a Material Culture of Microphysics* (Chicago: University of Chicago Press, 1997).
43. Galison, Peter Louis and Hevly, Bruce William, *Big Science: the Growth of Large-scale Research* (Stanford, Calif.: Stanford University Press, 1992).
44. Galison, Peter Louis and Stump, David J., *The Disunity of Science: Boundaries, Contexts, and Power* (Stanford, Calif.: Stanford University Press, 1996).
45. Gaston, Jerry, *Originality and Competition in Science: a Study of the British High Energy Physics Community* (Chicago: University of Chicago Press, 1973).
46. Goldberg, Stanley, "Inventing a Climate of Opinion: Vannevar Bush and the Decision to Build the Bomb," in Numbers, Ronald L. and Rosenberg, Charles E. (eds.), *The scientific enterprise in America: readings from Isis* (Chicago: University of Chicago Press, 1996).
47. Gooday, Graeme, *The Morals of Measurement: Accuracy, Irony, and Trust in late Victorian Electrical Practice* (Cambridge; New York: Cambridge University Press, 2004).
48. Gooday, Graeme, "Teaching Telegraphy and Electrotechnics in the Physics Laboratory: William Ayrton and the Creation of an Academic Space for Electrical Engineering in Britain 1873-1884," *History of Technology* 13(1991), 73-111.
49. Gooding, David, Pinch, T. J., and Schaffer, Simon, *The Uses of Experiment: Studies in the Natural Sciences* (Cambridge [Cambridgeshire]; New York: Cambridge University Press, 1988).
50. Graham, Loren R., *Science in Russia and the Soviet Union: a Short History* (Cambridge; New York: Cambridge University Press, 1993).
51. Grunden, Walter E., *Secret Weapons and World War II: Japan in the Shadow of Big Science* (Lawrence: University Press of Kansas, 2005).
52. Heilbron, J. L., A history of the problem of atomic structure from the discovery of the electron to the beginning of quantum mechanics, 1964, pp. v, 420 leaves.
53. Heilbron, J. L., Seidel, Robert W., and Wheaton, Bruce R., *Lawrence and his Laboratory: Nuclear Science at Berkeley* (Berkeley: Lawrence Berkeley Laboratory and Office for History of Science and Technology, University of California, 1981).
54. Heilbron, John L., "Lectures on the History of Atomic Physics," in Weiner, Charles (ed.), *History of Twentieth-Century Physics*, 2.2 – 20th Century Physics (New York, 1977).
55. Hentschel, Klaus, *Mapping the Spectrum: Techniques of Visual Representation in Research and Teaching* (Oxford; New York: Oxford University Press, 2002).
56. Herken, Gregg, *Brotherhood of the Bomb: the Tangled Lives and Loyalties of Robert Oppenheimer, Ernest Lawrence, and Edward Teller*, 1st ed. (New York: Henry Holt & Co., 2002).
57. Hoddeson, Lillian and Kolb, Adrienne W., "The Superconducting Super Collider's Frontier Outpost, 1983-1988," *Minerva* 38(2000), 271-310.

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58. Holloway, David, *Stalin and the Bomb: the Soviet Union and Atomic Energy, 1939-56* (New Haven: Yale University Press, 1994).
59. Hounshell, David A. and Smith, John K., *Science and Corporate Strategy: Du Pont R&D, 1902-1980* (Cambridge [Cambridgeshire]; New York: Cambridge University Press, 1988).
60. Hughes, Jeff, *The Manhattan Project: Big Science and the Atom Bomb* (New York: Columbia University Press, 2002).
61. Hunt, Bruce J., *The Maxwellians* (Ithaca: Cornell University Press, 1991).
62. Jackson, Myles W., *Spectrum of Belief: Joseph von Fraunhofer and the Craft of Precision Optics* (Cambridge, Mass.: MIT Press, 2000).
63. Joerges, Bernward and Shinn, Terry, *Instrumentation: between Science, State, and Industry* (Dordrecht; Boston: Kluwer Academic Publishers, 2001).
64. Kaiser, David, *Drawing theories Apart: the Dispersion of Feynman Diagrams in Postwar Physics* (Chicago: University of Chicago Press, 2005).
65. Kevles, Daniel J., *The physicists / the history of a scientific community in modern America* (Cambridge, Mass.: Harvard University Press, 1995).
66. Kim, Dong-Won, *Leadership and Creativity: A History of the Cavendish Laboratory, 1871-1919* (Dordrecht; Boston: Kluwer, 2002).
67. Kim, Dong-Won, "Two Different Influences on the Japanese Physics Community in the Early Twentieth Century," *Historia Scientiarum* 7-2 (1997), 125-136.
68. Kimura, Motoharu and Carpenter, John M., *Living with Nuclei: 50 years in the Nuclear Age, Memoirs of a Japanese Physicist* (Sendai, Japan: Printed by Sasaki Printing and Publishing, 1993).
69. Koizumi, Kenkichi, "The Emergence of Japan's First Physicists: 1868-1900," in McCormach, Russell (ed.), *Historical Studies in the Physical Sciences* (Princeton: Princeton University Press, 1975).
70. Kragh, Helge, *Quantum Generations: a History of Physics in the Twentieth Century* (Princeton, N.J.: Princeton University Press, 1999).
71. Kuhn, Thomas S., *Black-body theory and the quantum discontinuity, 1894-1912* (Chicago: University of Chicago Press, 1987).
72. Kuhn, Thomas S., "The Function of Measurement in Modern Physical Science," in Kuhn, Thomas S. (ed.), *The Essential Tension: Selected Studies in Scientific Tradition and Change* (Chicago: University of Chicago Press, 1977).
73. Lankford, John and Slavings, Ricky L., *American Astronomy: Community, Careers, and Power, 1859-1940* (Chicago: University of Chicago Press, 1997).
74. Lenoir, Timothy and Lecuyer, Christophe, "Instrument Makers and Discipline Builders: The Case of Nuclear Magnetic Resonance," *Perspectives on Science: Historical, Philosophical, Social* 3(1995), 276-345.
75. Leslie, Stuart W., *The Cold War and American Science: the Military-Industrial-Academic Complex at MIT and Stanford* (New York: Columbia University Press, 1993).
76. Longair, Malcolm S., *The Cosmic Century: A History of Astrophysics and Cosmology* (Cambridge: Cambridge University Press, 2006).
77. Low, Morris, "The Useful War: Radar and the Mobilization of Science and Industry in Japan," in MacLeod, Roy M. (ed.), *Science and the Pacific War: Science and Survival in the Pacific, 1939-1945* (Dordrecht: Kluwer Academic Publishers, 2000).

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78. Low, Morris, Nakayama, Shigeru, and Yoshioka, Hitoshi, *Science, technology and society in contemporary Japan* (New York: Cambridge University Press, 1999).
79. Lowen, Rebecca S., *Creating the Cold War University: the Transformation of Stanford* (Berkeley: University of California Press, 1997).
80. MacLean, J., "The Introduction of Books and Scientific Instruments into Japan, 1712-1854," *Japanese Studies in the History of Science* 13(1974), 9-68.
81. Maier, Clifford Lawrence, *The role of spectroscopy in the acceptance of the internally structured atom, 1860-1920* (New York: Arno Press, 1981).
82. Makinosuke, Matsui, *Sin-itiro Tomonaga: Life of a Japanese Physicist* (Tokyo, 1995).
83. McCormmach, Russell, *Night thoughts of a classical physicist* (Cambridge, Mass.: Harvard University Press, 1982).
84. McGucken, William, *Nineteenth-century spectroscopy; development of the understanding of spectra, 1802-1897* (Baltimore: Johns Hopkins Press, 1969).
85. Mehra, Jagdish, *The Solvay Conferences on Physics: Aspects of the Development of Physics since 1911* (Dordrecht, Holland; Boston: D. Reidel Pub. Co., 1975).
86. Morus, Iwan Rhys, *Frankenstein's Children: Electricity, Exhibition, and Experiment in Early-nineteenth-century London* (Princeton, N.J.: Princeton University Press, 1998).
87. Morus, Iwan Rhys, *When physics became king* (Chicago: University of Chicago Press, 2005).
88. Nye, Mary Jo, *Before Big Science: the Pursuit of Modern Chemistry and Physics, 1800-1940* (New York: Twayne Publishers, 1996).
89. Nye, Mary Jo, *Blackett: Physics, War, and Politics in the Twentieth Century* (Cambridge, Mass.: Harvard University Press, 2004).
90. Osterbrock, Donald E., *Yerkes Observatory, 1892-1950: the Birth, Near Death, and Resurrection of a Scientific Research Institution* (Chicago: University of Chicago Press, 1997).
91. Osterbrock, Donald E., Gustafson, John R., and Unruh, W. J. Shiloh, *Eye on the Sky: Lick Observatory's First Century* (Berkeley: University of California Press, 1988).
92. Pickering, Andrew, *Constructing Quarks: a Sociological History of Particle Physics* (Chicago: University of Chicago Press, 1984).
93. Quinn, Susan, *Marie Curie: A Life* (New York: Simon & Schuster, 1995).
94. Rhodes, Richard, *Dark Sun: the Making of the Hydrogen Bomb* (New York: Simon & Schuster, 1995).
95. Rhodes, Richard, *The making of the atomic bomb* (New York: Simon & Schuster, 1986).
96. Riordan, Michael and Hoddeson, Lillian, *Crystal Fire: the Birth of the Information Age*, 1st ed. (New York: Norton, 1997).
97. Robertson, Peter, *The Early Years: The Niels Bohr Institute, 1921-1930* ([København]: Akademisk Forlag: [eksp. DBK], 1979).
98. Rossiter, Margaret W., *Women Scientists in America: Struggles and Strategies to 1940* (Baltimore: Johns Hopkins University Press, 1982).
99. Schweber, S. S., *QED and the Men who Made It: Dyson, Feynman, Schwinger, and Tomonaga* (Princeton, N.J.: Princeton University Press, 1994).
100. Segrè, Emilio, *From X-rays to Quarks: Modern Physicists and their Discoveries* (San Francisco: W. H. Freeman, 1980).

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101. Servos, John W, "Mathematics and the Physical Sciences in America," in Numbers, Ronald L. and Rosenberg, Charles E. (eds.), *The scientific enterprise in America: readings from Isis* (Chicago: University of Chicago Press, 1996).
102. Sheehan, William and Westfall, John Edward, *The transits of Venus* (Amherst, N.Y.: Prometheus Books, 2004).
103. Sime, Ruth Lewin, *Lise Meitner: A Life in Physics* (Berkeley: University of California Press, 1996).
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